

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 24

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte PETER FIELD and DUNCAN KERR

Appeal No. 2000-1739
Application No. 08/800,742

ON BRIEF

MAILED

AUG 29 2001

PAT. & T.M. OFFICE
BOARD OF PATENT APPEALS
AND INTERFERENCES

Before ABRAMS, FRANKFORT and MCQUADE, Administrative Patent Judges.
FRANKFORT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 13, 17 through 19, 22 and 26. Claims 1 through 12 have been allowed, claims 14 through 16 and 23 through 25 are objected to and are considered allowable over the prior art of record, claim 20 has been withdrawn from consideration as being drawn to a non-elected invention and claim 21 has been canceled.

BACKGROUND

The appellants' invention relates to an electromechanical cylinder lock, wherein electronic authorization is required in addition to the use of a mechanical key for operation of the lock. The lock includes an outer shell (20) having a bore (22) in which a rotatable barrel (30) is positioned. The shell (20) further includes a side bar (60) which is located primarily within the barrel (30) and cooperates with the barrel (30) to either block or permit rotation of the barrel (30) with respect to the shell (20). A blocking mechanism actuator assembly is provided which functions to move a blocking slider bar (50) from a blocking position with respect to the side bar (60) to an unblocking position, whereby the blocking slider bar (50) is aligned with a recess (61) in the side bar (60). This is accomplished by passing an electrical current through a shape memory alloy wire (80) which will undergo a phase change and thereby pivot a rocker (70) which moves the slider bar (50) via a pusher (90) against the bias of a spring (100). An understanding of the invention can be derived from a reading of exemplary claims 13, 22 and 26, which appear in the Appendix to the appellants' brief.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Gokcebay et al. (Gokcebay)	5,552,777	Sept. 3, 1996
Aston	5,351,042	Sept. 27, 1994

Claims 13, 17 through 19, 22 and 26 stand rejected under 35 U.S.C. § 103 as being unpatentable over Aston in view of Gokcebay.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejections, we make reference to the final rejection (Paper No. 9, mailed July 30, 1998) and the answer (Paper No. 15, mailed March 15, 1999) for the examiner's complete reasoning in support of the rejections, and to the brief (Paper No. 14, filed March 1, 1999) and reply brief (Paper No. 16, filed May 17, 1999) for the appellants' arguments thereagainst.¹

¹ Prosecution was reopened January 20, 2000 (Paper No. 18) to apply a new double patenting rejection. The previous Final Rejection (Paper No. 9, mailed July 30, 1998) and appeal (Paper Nos. 14, 15 and 16) were reinstated. See Paper Nos. 22 and 23 for the reinstatement agreement between the examiner and appellants.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by the appellants and the examiner. As a consequence of our review, we make the determinations which follow.

Looking to the examiner's prior art rejection of appealed claims 13, 17 through 19, 22 and 26 under 35 U.S.C. § 103 as being unpatentable over Aston in view of Gokcebay, the examiner concluded that "Aston teaches all the elements of these claims with the exception of the nitinol actuator being mounted in the plug" (answer, page 3). The examiner further stated that "[i]t would have been an obvious relocation and reversal of parts to mount the Nitinol wire and lever 42 in the plug which is accepted into a recess of the casing in a manner similar to that set forth in Gokcebay for the reasons set forth therein" (final rejection, page 3).

The test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art. See In re Young, 927 F.2d 588, 591, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991) and In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). Moreover, in evaluating such references it is proper to take into account not only the specific teachings of the references but also the inferences which one skilled in the art would reasonably be expected to draw therefrom. In re Preda, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968).

Upon review of the collective teachings of Aston and Gokcebay, we note that the Aston patent discloses an electronic lock cylinder comprising an outer shell (10) having a bore therein, a barrel or plug (11) disposed within the bore and rotatable relative to the outer shell, a blocking mechanism (42) selectively movable from a blocking position for blocking rotation of the barrel to an unblocking position to permit rotation of the barrel, a nickel titanium wire (i.e., a shape memory alloy actuator 40) cooperating with the blocking mechanism and an electronic control means (16) located in at least the lock cylinder. An electrical current is passed through the wire, thus

causing the wire to contract and pivot the blocking mechanism (42) out of engagement with the barrel to allow the barrel to rotate (see Figure 4 and col. 3, lines 50 to 62). Aston further discloses that a second shape memory wire (not shown) can be provided to prevent the lock from being opened upon external heat being applied to the lock (col. 3, line 63 to col. 4, line 3). The blocking mechanism (42) and shape memory wire (40) are located within the outer shell (10) but outside of the barrel (11). Independent claims 13, 22 and 26 each require the shape memory wire and the electronic control means to be located within the barrel.

Gokcebay discloses an electromechanical lock which comprises an outer shell or cylinder (20) having a bore therethrough, a plug (24) located within the cylinder bore that is rotatable therein and an electrically actuated blocking mechanism (36, 38) located within the plug which selectively moves to an unblocking position upon occurrence of a predetermined condition, thus allowing rotation of the plug within the cylinder. The blocking mechanism is responsive to an electrical input from components (32, 34, 40) also contained within the plug (24). See Figures 2

within the plug (24). See Figures 2 and 6; column 5, lines 59-61 and column 10, lines 11-20 of Gokcebay.

Like the examiner, given the collective teachings of Aston and Gokcebay, we consider that it would have been obvious to one of ordinary skill in the art to locate the Nitinol actuator wire and its associated operating components of Aston within the plug (11) in light of the advantage of this arrangement as taught in Gokcebay.

Appellants' argue that Gokcebay does not teach "any specific benefit of 'housing the electronic access feature of a lock cylinder in the mechanical lock plug itself' (emphasis added) as alleged in the Office action" (brief, page 7). We disagree with appellants' characterization of the Gokcebay reference. In fact, as noted above, Gokcebay shows electrical components (32, 34, 40) of an electronic access feature, positioned in a flat recess (42) in the surface of the cylinder plug (24). Gokcebay states (col. 2, lines 49-54) that an object of the invention is to provide a system for easily retrofitting lock systems having a single key operating a number of locks, and further teaches that

[n]othing is required outside the lock cylinder, and in fact, in preferred embodiments, all electronics and hardware are contained in the cylinder plug, aside from a small recess or bore which is provided in the cylinder shell (emphasis added) (col. 3, lines 2-4).

Appellants further assert that there is "no showing or even an allegation anywhere in the Answer that there exists in the prior art any reason or motivation for one having ordinary skill in the art to have made the claimed invention" (reply brief, page 2). We note, although the examiner may not have expressly pointed out the existing motivation set forth in Gokcebay, motivation is present in that patent as the examiner broadly indicated in the final rejection. Gokcebay clearly teaches that the purpose of providing the entire blocking mechanism within the plug is to "provide a system which is very easily retrofitted into lock systems . . . and which avoids the need for electronics, solenoids or other hardware which would take up space within . . . the lock casing adjacent to the lock" (col. 2, lines 49 through 54). Therefore, notwithstanding appellants' arguments, we remain of the opinion that it would have been obvious to one having ordinary skill in the art at the time of appellants' invention to modify Aston's lock by placing the blocking components and electronic control device within the barrel as taught by Gokcebay for the purpose of creating a lock

that can be easily retrofitted into existing locks. Accordingly, the examiner's rejection of independent claims 13, 22 and 26 on appeal under 35 U.S.C. § 103 is sustained.

The appellants have grouped claims 13, 17 through 19, 22 and 26 as standing or falling together.² Thereby, in accordance with 37 CFR § 1.192(c)(7), claims 17 through 19 fall with claims 13, 22 and 26. Thus, it follows that the decision of the examiner to reject claims 17 through 19 under 35 U.S.C. § 103 is also sustained.

CONCLUSION

To summarize, the decision of the examiner to reject claims 13, 17 through 19, 22 and 26 under 35 U.S.C. § 103 is affirmed.

² See page 5 of the appellants' brief.

AFFIRMED

JOHN P. MCQUADE
Administrative Patent Judge

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